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New Nearctic Species of *Erythroneura* (Homoptera: Cicadellidae)

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During a study of the host relationships of the genus *Erythroneura* several species new to science were discovered and are herein described. Types are deposited in the collection of the Illinois Natural History Survey.

All these species belong to the *maculata* group, are of medium size for the genus, ranging from 2.8 to 3 mm., and have the more or less distinct, separate spots and short bars typical of most of the species in this group. These characteristics are not mentioned further in the descriptions. In the case of each species the diagnostic differences occur in the male genitalia.

Erythroneura harpola new species

The short, wide aedeagus indicates that the species belongs with *parallela* and its allies, from which it differs in the dorsal, out-curved spur of the pygofer hook.

Male genitalia as in fig. 1. Pygofer slender and having a dorsal, short, slender process arising some distance before the apex; this process also curves laterad. Style with long posterior point and inconspicuous anterior point; heel moderately sharp. Phallicata short, truncate at apex, the apical portion armed with minute spines, and the postero-ventral aspect wide and somewhat rectangular.

Holotype ♂.—Kinderhook, ILLINOIS, Aug. 9, 1951, on *Acer saccharum*, Richards and Stannard. *Paratypes*.—Same data, 1 ♂; Eddyville, Ill., Sept. 16, 1954, Mills and Ross, 1 ♂.

Erythroneura glicilla new species

This species is most closely related to *ingrata* Beamer, differing in the uniform thickness of the pygofer hook and the wider, more sinuate lateral flanges of the phallicata.

Male genitalia as in fig. 2. Pygofer hook extending a short distance beyond apex of pygofer, its lateral aspect of almost uniform thickness, the dorsal aspect moderately sinuate. Style as in *ingrata*, the posterior point long and slender, the heel projecting as a broad triangle. Phallicata forming only a gentle angle with base of aedeagus; lateral aspect slightly sinuate, with a dorsal lip at the extreme apex; ventral aspect with wide and smooth lateral flanges.

Holotype ♂.—Jonesboro, ILLINOIS, Je. 5, 1951, on *Carpinus caroliniana*, Ross and Richards.

Erythroneura citrosa new species

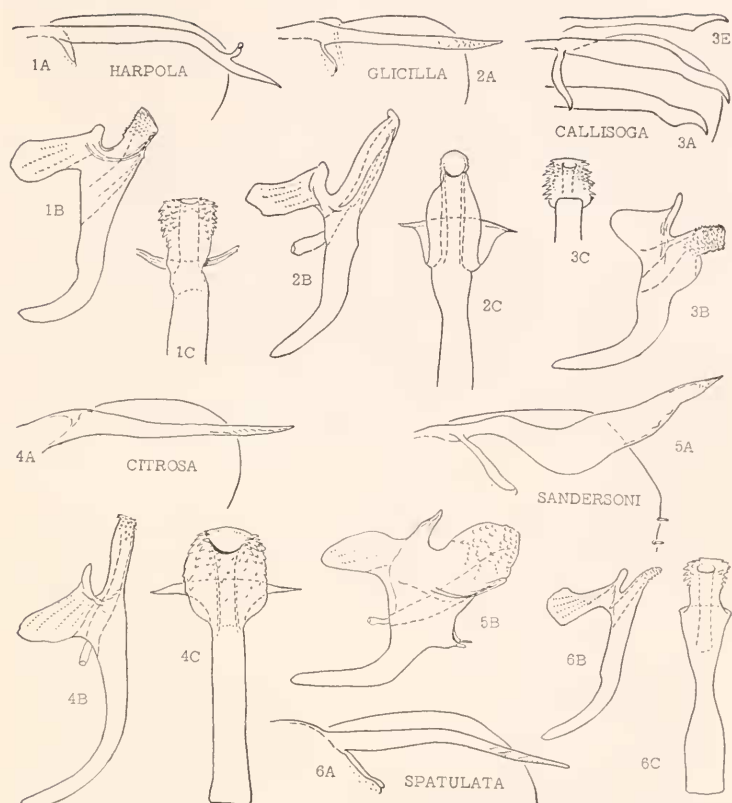
The long posterior point of the style and broad posterior aspect of the phallicata indicate that this species is most closely related to *parallela* McAtee, from which it differs in the elongate lateral aspect of the phallicata.

Male genitalia as in fig. 4. Pygofer hook extending a considerable distance beyond apex of pygofer, in lateral view slightly sinuate, in dorsal view moderately sinuate. Style with elongate posterior point and inconspicuous heel. Phallicata extending almost perpendicular to the base of the aedeagus; lateral aspect fairly long and narrow, with conspicuous small teeth at apex; ventral aspect wide and almost oval.

Holotype ♂.—Salem, ILLINOIS, Sept. 22, 1948, on *Corylus americana*, Ross and Stannard. *Paratypes*.—Same data, 1 ♂; Rocky Branch, Clark Co., Ill., Sept. 14, 1949, Stannard and Ross, 1 ♂; Galena, Ill., Sept. 6, 1951, Mills and Ross, 3 ♂; Galena, Ill., Jl. 10, 1934, DeLong and Ross, 2 ♂. All but the last collection from *Corylus americana*.

Erythroneura callisoga new species

The curiously irregular pygofer hook will distinguish this species from its closest allies which belong to the *parallela* complex.



FIGS. 1-6. Male genitalia of *Erythroneura*. A, pygofer hook, lateral aspect; B, C, aedeagus, lateral and posterior aspects; D, style; E, pygofer hook, dorsal aspect.

Male genitalia as in fig. 3. Pygofer hook moderately short; lateral aspect with basal portion deep, the apical third narrow and twisted ventrad; dorsal aspect with basal portion narrow and with a prominent widened area just before the tip. Style with long posterior point as in *parallela*. Phallicata short, projecting at a moderately sharp angle from base of aedeagus which is swollen to form a round shoulder immediately below the phallicata; lateral aspect of phallicata truncate and spiny, ventral aspect nearly as wide as long and with sharp spines along the edge of the lateral flange.

Holotype ♂.—Giant City State Park, ILLINOIS, Sept. 14, 1954, on *Acer saccharum*, Mills and Ross.

***Erythroneura spatulata* new species**

Another close relative of *parallela*, this species is readily diagnosed by the narrow lateral aspect of the phallicata.

Male genitalia as in fig. 6. Pygofer hook fairly elongate, narrow, gradually tapering to apex, the dorsal aspect moderately sinuate. Style with long posterior point, almost exactly as in *parallela*. Aedeagus with very short phallicata, its lateral aspect very narrow, its posterior aspect wide and serrate.

Holotype ♂.—Rock Island, ILLINOIS, Jl. 7, 1934, DeLong and Ross. *Paratypes*.—Fox Ridge State Park, Ill., Je. 29, 1947, on *Carya*, Ross and Stannard, 4 ♂.

***Erythroneura norica* new species**

This species probably approaches most closely *malaca* Knull, differing in the more massive foot of the style and the evenly tapering pygofer hook.

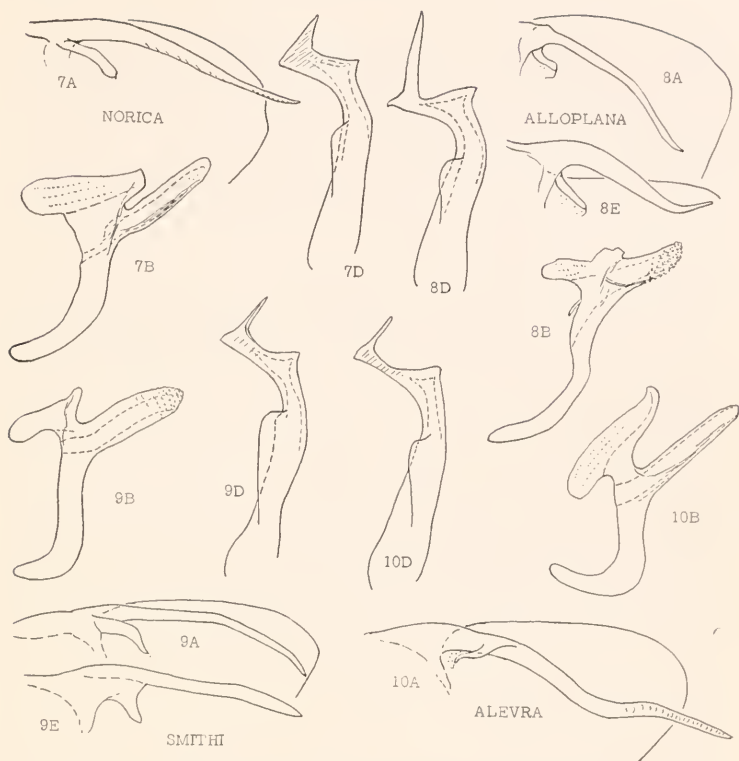
Male genitalia as in fig. 7. Pygofer hook elongate, the lateral aspect tapering evenly from a stout base to a narrow apex, dorsal aspect evenly and gently sinuate. Style with massive foot and triangular posterior point. Phallicata moderately long, slightly deeper than wide, with only minute lateral teeth, with a pair of narrow lateral flanges, and set at a slight angle from the base of the aedeagus.

Holotype ♂.—Forest City, ILLINOIS, Sept. 11, 1951, on *Quercus marilandica*, Stannard and Ross. *Paratypes*.—Same data, 23 ♂; same data but Sept. 8, 1954, 2 ♂.

***Erythroneura alloplana* new species**

A close relative of *parva* Beamer, this species differs in the stouter phallicata and shape of the pygofer hook.

Male genitalia as in fig. 8. Pygofer hook short, the lateral aspect narrow and slightly angled, the dorsal aspect wide, tapering sharply to apex, extreme apex curved mesad. Style with very long posterior point and small, angular anterior point.



FIGS. 7-10. Male genitalia of *Erythroneura*. Abbreviations as for figs. 1-6.

Phallicata short, spinose at apex, the lateral aspect stocky, the posterior aspect with wide basal flanges, the entire structure situated at the dorsal extremity of the aedeagal base.

Holotype ♂.—Forest City, ILLINOIS, Sept. 11, 1953, on *Quercus marilandica*, Stannard and Ross. *Paratypes*.—Same data, 2 ♂; same but Sept. 8, 1954, 2 ♂; Meredosia, Ill., Oct. 2, 1951, on *Quercus marilandica*, Sanderson and Stannard, 1 ♂; Marshall, Ill., Sept. 27, 1934, Frison and Ross, 1 ♂.

Erythroneura alevra new species

Closely related to *externa* Beamer, this species differs in the long posterior point and the narrow phallicata.

Male genitalia as in fig. 10. Pygofer hook extended beyond pygofer, in lateral view of almost even thickness, in dorsal view sickle-shaped. Foot with moderately long and slender posterior point. Phallicata slightly deeper than wide, has fairly wide basal flange, but few spicules.

Holotype ♂.—Mt. Vernon, ILLINOIS, Sept. 1, 1950, on *Quercus alba*, Ross and Evers.

Erythroneura sandersoni new species

The curious tubercles beneath the phallicata separate this species from *spinca* Knull, the only species to which this appears closely related.

Male genitalia as in fig. 5. Pygofer hook with a slender base and greatly expanded apical position, irregular in outline. Foot with very long posterior point. Phallicata massive but short, with wide basal flange; beneath the phallicata the aedeagal base has a wide prominence bearing a pair of bag-like processes.

Holotype ♂.—Elizabethtown, ILLINOIS, Jl. 27, 1951, on *Acer*, Richards and Sanderson. *Paratype*.—Giant City State Park, Ill., Jl. 16, 1954, on *Acer saccharum*, Stannard and Ross, 1 ♂.

Erythroneura smithi new species

This species appears closest to *malaca* Knull, but differs in the ribbon-like pygofer hooks and narrow posterior point.

Male genitalia as in fig. 9. Pygofer hook elongate, slightly angled at middle, the dorsal aspect wider than the lateral. Posterior point nearly as long as the foot, straight and slender. Phallicata much deeper than wide, without flanges but with small spicules toward apex.

Holotype ♂.—Meredosia, ILLINOIS, Sept. 8, 1954, on *Quercus marilandica*, Ross and Stannard. *Paratypes*.—Same data, 2 ♂; Christopher, Ill., Aug. 5, 1954, on *Q. marilandica*, Ross and Moore, 1 ♂.